

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT**

**Resident Engineer:** Casey, William  
**Address:** 333 Burma Road  
**City:** Oakland, CA 94607

**Report No:** WIR-029811  
**Date Inspected:** 15-Jul-2013

**Project Name:** SAS Superstructure  
**Prime Contractor:** American Bridge/Fluor Enterprises, a JV  
**Contractor:** American Bridge/Fluor Enterprises, a JV

**OSM Arrival Time:** 700  
**OSM Departure Time:** 1730  
**Location:** Job Site

<b>CWI Name:</b>	Jesus Cayabyab	<b>CWI Present:</b>	Yes	No
<b>Inspected CWI report:</b>	Yes No N/A	<b>Rod Oven in Use:</b>	Yes	No N/A
<b>Electrode to specification:</b>	Yes No N/A	<b>Weld Procedures Followed:</b>	Yes	No N/A
<b>Qualified Welders:</b>	Yes No N/A	<b>Verified Joint Fit-up:</b>	Yes	No N/A
<b>Approved Drawings:</b>	Yes No N/A	<b>Approved WPS:</b>	Yes	No N/A
		<b>Delayed / Cancelled:</b>	Yes	No N/A
<b>Bridge No:</b>	34-0006	<b>Component:</b>	SAS Tower	

**Summary of Items Observed:**

Caltrans Quality Assurance Inspector (QA) Joe Adame arrived at the American Bridge/Fluor (ABF) job site between the times noted above in order to monitor ABF Quality Control functions and the in work being performed by ABF personnel. The following items were observed:

**Tower Electroslag Welds:**

The QA Inspector was present to perform Ultrasonic Testing (UT) verification on Electroslag (ESW) welds on the interior of the Tower. The purpose of the UT inspection was for the detection of planar indications utilizing both the "pulse echo" (PE) technique and the "pitch and catch" (PC) technique for further discontinuity evaluation on ESW welds. The UT inspection was performed as a joint inspection with ABF/JV Quality Control (QC) Smith Emery NDT personnel. The QA Inspector performed joint UTSW Pitch/Catch with QC Inspector Jesse Cayabyab on the items listed below.

ESW S-045 Location "G", 60mm Thick, 70° Angle (Results below):

Y: 9490mm, X: -10 Face B

-PEUT: Ind. Lvl (A): 69, Ref. Lvl (B): 52, Att. Factor(C): 9, Ind. Rating (D): 8, SD (E): 120  
-PCUT: Ind. Lvl (A): 58, Ref. Lvl (B): 52, Att. Factor(C): 12, Ind. Rating (D): -6, SPa (E): 115

Y: 9490mm, X: -10 Face A

-PEUT: Ind. Lvl (A): 64, Ref. Lvl (B): 52, Att. Factor(C): 8, Ind. Rating (D): 8, SD (E): 65  
-PCUT: Ind. Lvl (A): 55, Ref. Lvl (B): 52, Att. Factor(C): 12, Ind. Rating (D): -9, SPa (E): 95

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## WELDING INSPECTION REPORT

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ESW pitch & catch UT was performed per ABF Sup. Procedure 3 UT of ESW Groove Welds Pitch- Catch. The tandem UT report for work performed on this date will be completed by QC Inspector Jesse Cayabyab and signed by both QA/QC parties to be presented to ABF & CT METS for further review.

Tower Electroslag Welds (ESW)

RWR-201305-002

ESW N-043, Location "P"- Face A, B:

QA performed Ultrasonic Testing (UT) on approximately 1260mm of Tower Electroslag Complete Joint Penetration (CJP) shear plate weld designated as ESW "P" face A,B. Location –Excavation Y=5200mm ~5860mm & 4900mm~5200mm, 5860mm~6160mm of this weld was inspected using this testing method.

No rejectable or recordable indications were observed.

QA performed UT of the above mentioned ESW location in accordance with the ABF approved supplemental procedure for confirmation and evaluation of planar type defects. Tandem report for work performed on this date will be completed by QC technician and signed by both QA/QC parties. Items listed on tandem report reflect indications agreed upon by QA/QC. Please see TL-6027 for items inspected on this date.

### Summary of Conversations:

Only general conversations with ABF/JV QC NDT personnel relevant to work and testing performed during this shift.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Gary Thomas (916) 764-6027, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Adame,Joe	Quality Assurance Inspector
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<b>Reviewed By:</b>	Mertz,Robert	QA Reviewer
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